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ABSTRACT

This document outlines the National Center for Research Vocational Education's 1995 agenda. The agenda is divided into two parts. Part 1 summarizes the center's plans for research and development activities on the following six themes: the economic context of vocational education (VE); institutions, "systems," governance, and policy; effective curriculum development and teaching practices; students; personnel; and accountability and assessment. First, recent developments related to each theme and premises of the agenda for each theme are discussed. Next, project proposals are presented for each theme area. Each proposal contains the following: theme area; project title; project director; key words; and brief project description (including project purpose, first-year goals and activities, intended products, primary audience, and/or avenues for dissemination). Part 2 summarizes the center's plans regarding the following dissemination and training activities: development/implementation of dissemination and professional outreach programs, establishment of an office of student services, publication of research syntheses under the title "CenterFocus," presentation of a skills standard conference, development of a practitioner guide to new curricula and teaching on education for work, and provision of technical assistance to the Vocational Education Consortium of the Southern Regional Education Board. (MN)

ED 384 802

NCRVE

National Center for Research in
Vocational Education

University of California, Berkeley

THE 1995 AGENDA FOR THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

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THE 1995 AGENDA FOR THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

Graduate School of Education
University of California at Berkeley

Consortium Members

The University of California at Berkeley
The University of Illinois
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MPR Associates, Inc.
RAND
Teachers College, Columbia University
Virginia Polytechnic Institute and State University
The University of Wisconsin

National Center for Research in Vocational Education
Graduate School of Education
University of California at Berkeley
2150 Shattuck Avenue, Suite 1250
Berkeley, CA 94704

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MISSION STATEMENT

NCRVE's mission is to strengthen education to prepare all individuals for lasting and rewarding employment and lifelong learning.

The National Center for Research in Vocational Education (NCRVE) is the nation's largest center for research, development, dissemination, and outreach in work-related education. Headquartered at the University of California at Berkeley since 1988, NCRVE is presently an eight-member consortium, with Berkeley assisted in its efforts by the University of Illinois; MPR Associates, Inc.; the University of Minnesota; RAND; Teachers College, Columbia University; Virginia Polytechnic Institute and State University; and the University of Wisconsin. The presence of NCRVE or one of its members in nearly every region of the country places NCRVE in contact with the enormous diversity of educational institutions and labor markets in the United States. It also connects the Center with practitioners in each geographic region of the country.

NCRVE has played a key role in developing and disseminating a new concept of vocational education as it works towards fulfilling its mission of strengthening education.

NCRVE believes such education

- offers every student the option of a high-quality, career-related course of study.
- integrates curricula, maintaining an emphasis on learning through applied problem-solving—a strong feature of traditional vocational education—while including a rigorous course of academic study.
- simultaneously prepares students for immediate employment, further education, and lifelong learning.

We envision the NCRVE as serving in the role of a *change agent*, rather than as simply in the role of an analyst of current patterns, a service agency, or an advocate.

Effective change must do more than transfer research knowledge to user communities. It also must do more than transfer working knowledge to other practitioners and back to researchers. Beyond transfer of knowledge is the creation of

collaborative knowledge. Through development, dissemination, and outreach activities, NCRVE serves as a change agent in helping schools to create answers themselves for the dilemmas they face.

NCRVE strives to integrate its research, development, dissemination, and outreach with practice from the outset, to the extent possible, through a collaborative change process that recognizes that the individuals involved in the production, transfer, and use of new knowledge must participate throughout the entire process.

This strategy involves implementing four principles:

1. Change depends on building and maintaining *networks* that support and expand the collaborative development and sharing of working knowledge, as well as research knowledge.

2. Change requires *continuous communication* among all vocational education actors who produce and use knowledge.

3. Change is *developmental*, initially helping people to commit to change and then assisting them to implement policies and practices that accomplish the desired change.

4. Change uses *multiple, simultaneous strategies* to reach a wide range of audiences, recognizing persons and the groups to which they belong change at different rates, times, ways, and so on.

Attention to these principles ensures that NCRVE is not simply dispersing information but is making significant contributions to the improvement of both research and practice.

The Organization of NCRVE's Agenda

NCRVE organizes its activities around two functions: (1) Research and Development and (2) Dissemination and Training. Research and Development is comprised of six substantive areas and Dissemination and Training is comprised of three programs.

Research and Development Areas

Area I:	The Economic Context of Vocational Education
Area II:	Institutions, "System," Governance, and Policy
Area III:	Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education
Area IV:	Students in Vocational Education
Area V:	Personnel in Vocational Education
Area VI:	Accountability and Assessment

Dissemination and Training Programs

Dissemination

Professional Outreach

Student Services

PART ONE: RESEARCH AND DEVELOPMENT

Area I: The Economic Context of Vocational Education

The changing economic context in the United States is key to NCRVE fulfilling its mission *to strengthen education to prepare all individuals for lasting and rewarding employment and lifelong learning*. The realization of this mission partly depends on the existing nature of employment and the trends in the skills required in the workforce. Thus, this theme encompasses such issues as skill requirements, the nature of labor markets for which occupational programs prepare students, changes in skills and employment, business and industry skill standards, and shifts to flexible organization of work.

Area II: Institutions, "Systems," Governance, and Policy

In a parallel fashion, vocational programs exist in a specific institutional context, a particular configuration of education and training institutions that has been developed over the past thirty years, and that has become more complex (and will continue to do so) as new institutions and new programs are instituted. In such a world it makes no sense to continue examining vocational education—or indeed any other institution—in isolation

from those institutions and programs surrounding it. This second area therefore examines the specifics of this evolving education and training "system," including describing the variety of institutions providing vocational education and their funding. Additionally, we will evaluate the effectiveness of these "systems."

Area III: Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education

The new vision and meaning of vocational education is now taking shape across the United States. An important leadership role for NCRVE is to identify and document effective practices and policies to ensure that we connect these practices and policies with attainment of the desired outcomes for vocational education. We need to develop a deeper and clearer understanding of which outcomes are desirable for which students in which context and the practices and policies that lead to these outcomes. This contribution by NCRVE can greatly advance the adoption of new dimensions of vocational education in the United States. Linked closely to charting effective practice consistent with the new image of vocational education is the removal of barriers to further diffusion of the overall NCRVE strategy for transforming vocational education in the United States.

Area IV: Students in Vocational Education

Both the students of the nation's schools and their vocational education programs are in a dynamic state of change as we approach the end of the millennium. Due to changing economic and family circumstances and immigration policies, the mix of students coming to school—and ultimately to the workplace—include growing segments of youth and adults who have traditionally encountered considerable difficulties in both school and work settings. While the new vision of vocational education promoted by NCRVE offers considerable promise for many students, the understanding of its effects on the full range of students is far from complete.

Area V: Personnel in Vocational Education

As change has continued to affect the ways educational institutions across the country operate, education professionals have been asked to run their community and technical colleges and secondary schools in new and creative ways. Of these professionals, teachers and administrators are generally recognized as those in the best position to make change really happen. If teachers and administrators embrace an innovation and support its implementation, the potential for success is greatly enhanced. An innovation may never be implemented if teachers and administrators do not support it.

The agenda of this theme area is based on two premises. First, teachers can and should serve as a professional link between the educational institution (including its philosophy, mission, goals, programs, courses, and content) and the students—where students learn, what they learn, and how they learn. Second, administrators, by virtue of their positions, are potential agents of change. Administrators can and should provide leadership in transformational ways that enable education to evolve from what it is to what it should be.

Area VI: Accountability and Assessment

The final theme area focuses on accountability and assessment. Two questions guide NCRVE's agenda in this area: (1) How well are these systems of accountability and assessment working? and (2) What can be done to improve their usefulness and effectiveness, especially at the local level?

This area encompasses methodological concerns about evaluation, performance measures and standards, new forms of assessment, and other mechanisms of accountability. Understanding in all of these arenas is necessary in order to determine whether the system of vocational education has, in fact, been responsive to the changing conditions of work and whether vocational programs have prepared individuals for rewarding employment over the long run, supporting the shift to a high-skills equilibrium.

RESEARCH PROJECTS

Area I:
The Economic Context of Vocational Education

Project RI.1
Strengthening Employer Participation in School-to-Work Programs

Project Director: Thomas Bailey, Teachers College, Columbia University (Year 1 of 2)

Keywords: technical assistance: employer participation; school to work; school-to-employer connections

The overall purpose of this project will be to work with individual sites that are receiving support from the School-to-Work Opportunities (STWO) Act to help them develop and strengthen their efforts to recruit, secure, and strengthen employer participation in their school-to-work programs. The sites with which we will work are all building on past programs such as cooperative education that have included employer participation and employer provided work-experience sites. Our project will first examine the past experience that these sites have had with recruiting and working with employers. We will do this both through interviews with program personnel and through a telephone survey of participating and nonparticipating employers. We will then work closely with the sites to develop their expanded efforts, tracking their programs as they are put into practice.

A team from the NCRVE site at RAND, led by Cathy Stasz, will also participate in this project.

By the end of the first year, we will produce brief critical summaries of the employer participation efforts in New York State and Los Angeles. In the second year, we will write a preliminary report that will summarize early findings from the employer survey. At the end of the project we will produce evaluation reports on the progress of the programs. These will be expanded into practitioner-oriented briefs that can be used by employers, unions, local-level educators, and states to help them strengthen their efforts to involve employers.

Our work will be used first to help the specific efforts of our sites. Additionally, our final report will be designed to use the lessons and insights developed in our interactive work with specific programs to help sites throughout the country. Project outcomes will be further disseminated through a conference on employer participation planned for the middle of the second year.

Our primary audience will be the staff and employers involved with the programs with which we are working. Results will be disseminated to them through the planned activities and reports of the project. Other audiences of interest consist of employers and educators elsewhere who are trying to implement school-to-work programs, as well as state and federal government personnel overseeing the implementation of the STWO Act. These groups will be reached through the final report of the project, the practitioner-oriented briefs, speeches, and presentations at the American Vocational Association (AVA) convention and to various groups of educators and policymakers, along with a conference on employer participation planned for the second year. We will also address other researchers and academics through the publication of articles and through presentations at conferences such as the American Education Research Association (AERA).

Project RI.2
Changing Work, Changing Literacy? A Study of Skill Requirements and Development in a Traditional and Restructured Workplace

Project Director: Glynda Hull, University of California, Berkeley (Year 1 of 3)

Keywords: literacy, workplace; work skills

The purpose of this project is (1) to identify in ethnographic detail the literacy-related skills that are required in today's changing workplaces; (2) to compare the literacy requirements of "high performance" workplaces with more traditionally organized ones; and (3) to construct innovative ways to introduce educators to the changing skill demands of work. In the final year of our research, we will also determine how literacy requirements vary in these factories, given different types of work organization. Finally, we will complete and field-test a multimedia database which can be used by vocational and literacy educators.

This project is cosponsored by the National Center for Research on Writing and Literacy, and affiliated with the National Center for the Workplace.

This study will yield a final formal research monograph. The report will discuss the kinds of literacies that accompany work in changing workplaces; it will contrast the literacy requirements of "high performance" versus traditionally organized factories; and it will trace the implications of these findings for vocational and literacy educators in secondary and postsecondary schools and colleges and for policymakers and researchers. We will develop a multimedia database in the form of a compact disc—a computer-based compendium of video from the factory floors; audiotaped interviews with line workers, engineers, and managers; examples of written documents and schematic diagrams and other data—which can be used to introduce vocational and literacy educators, in dynamic fashion, to the literacy requirements of changing workplaces.

Our intended audiences include literacy and language practitioners in high schools and community colleges, adult educators who focus on basic skills instruction, vocational educators with an interest in the skill requirements of changing workplaces, researchers who specialize in literacy issues, and ethnographers who focus on workplaces.

One avenue for dissemination will be the NCRVE technical report series, the National Center for the Study of Writing and Literacy's technical report series, and journals for researchers and practitioners. The final report will be distributed through the publication channels of both centers. We expect to develop shorter articles for practitioners and researchers and to publish those in appropriate professional journals. Finally, we will report on the research at national annual conferences such as AERA meetings, and at special interest conferences on literacy in general and workplace literacy in particular.

In addition to the more traditional dissemination avenues mentioned above, we would like to launch a different kind of effort with our multimedia database. Specifically, we would like to convene groups of educators with an interest in literacy and/or school-to-work efforts, introduce them to the database, and document their responses. Analyses of teachers' conversations about the database will provide an interesting window on how well the multimedia tool functions; information about teachers' conceptions of

workplaces and the process of reimagining curricula in light of work; and suggestions for companies as well about teaching and learning.

Area II:
Institutions, "System," Governance, and Policy

Project RII.1
Reshaping Vocational Education in the Context of the Multiple Reforms in Secondary Schools

Project Director: Judith Warren Little, University of California, Berkeley (Year 1 of 2)

Keyword: educational reform

The nature and extent of vocational reform, its goals, and their "fit" with other educational purposes, remain topics of debate among policymakers, educators, and the public. This project offers a timely opportunity to inform those debates by examining the intersection of the various reform currents, the ways in which they play out in schools, and the ways in which they are shaped by policy at multiple levels.

The project is organized in two components. First, a review of policy initiatives and strategies in selected states (the "state reviews") will help us to trace the specific ways in which states are positioned to foster improvements in the transition from school to work. Second, selected local case studies (the "local contexts of reform") represent contrast cases with respect to local and state policy environments, and permit investigation of the possibilities for work education that reside in the most widely publicized of the various secondary reform models.

Two publications will be produced to support the development of policy and program alternatives at the local and state levels. The first will report the first stage of "state reviews," and will be prepared in a format intended for use by state policymakers and program developers. The second material will incorporate two independent case study reports—one on state-supported reform initiatives and one on local reform driven by the principles of the Coalition of Essential Schools. It is intended for use by local and state policymakers and educators.

Project reports will be distributed through NCRVE's distribution network and appropriate conference presentations. Papers based on project findings will be prepared for appropriate journals or for inclusion in books. In addition, we anticipate preparing short summaries of the larger project reports for audiences of practitioners and policymakers, as well as participating in a small number of large-scale conferences (e.g., AVA pre-sessions).

Project RII.2
Tech Prep as a School-to-Work Vehicle to Educational Reform

Project Director: Debra D. Bragg, University of Illinois (Year 1 of 2)

Keywords: Tech Prep; school to work; educational reform

This multiyear study will address three research objectives: (1) to examine student demographic characteristics, academic abilities, and educational and occupational aspirations; (2) to describe the array of educational experiences created by local consortia and states for student Tech Prep participants and identify the relationships among these educational experiences and student characteristics; and (3) to ascertain student outcomes (benefits) associated with varying levels of experience with Tech Prep curricula and programs. The research methodology will include a national survey as well as case studies involving student cohort groups in six to eight local Tech Prep consortia in the United States. The findings will have implications for local, state, and federal policy and practice regarding Tech Prep, STWO, and educational reform.

Deliverables

Three deliverables will be prepared. First, a practitioner-oriented deliverable will be produced from this report to summarize the findings of the national study of Tech Prep and STWO policy regarding the Tech Prep student.

Second, an article will be prepared and submitted for publication in a major professional journal focusing extensively on Tech Prep and STWO policy in relation to the nation's evolving educational reform agenda.

This project's findings will be disseminated through annual conferences of the National Tech Prep Network, American Evaluation Association, and American Vocational Association. These presentations will be designed specifically to fulfill the needs of several audiences: local and state Tech Prep practitioners, educational researchers, teacher/educators, educational reformers, school-to-work advocates, and business representatives. The findings will also be submitted to major professional periodicals such as *Educational Evaluation and Policy Analysis*.

In addition to these national meetings and publications, findings from this project will be presented at other local and state meetings throughout the project year.

Project RII.3
Public University Responsiveness to Lower School Reform

Project Directors: Kimberly Ramsey, RAND
Alexander McCormick, MPR Associates, Inc. (Year 1 of 2)

Keywords: educational reform; nonstandard courses/credits; four-year postsecondary institutions

The explosion of education reforms in the past decade is now resurrecting historical tensions between the public university and the public school. Vocationally and academically inspired reformers now share a common problem—both experience reluctance by the university to accept new nonstandard courses and assessments. Ironically, these nonstandard courses and assessments resulted from efforts to make school more meaningful to students by integrating curricula and assessing mastery and performance. In spite of the substantial private, state, and federal investment in these reforms, they will not undergo the test of systemwide implementation if a full range of American youth and educators are not participating. The university holds the key because college-bound youth and parents will not participate if they believe their chances for university admission are compromised. This two-year project focuses on two questions: (1) *How are state universities coping with curricular experiments?* and (2) *What difficulties have reformers encountered with universities?* To answer the questions we propose to undertake a historical review of university-high school relations followed by case studies of how universities located in four different states presently cope

with reform efforts of high schools and community colleges. We then will scale up our analytic efforts to the fifty states, followed by a forum for reformers and university leaders to discuss strategies needed to support promising and educationally sound reforms.

We will produce three documents. The first is a final technical report that will include the historical analysis and results from cross-case analysis of the state case studies and the demonstration forum. The report should be of interest to researchers, universities, reformers, and the policy community. The second document is a guide for reformers that will include the results of the fifty-state survey. The third document is a short policy brief.

In addition, we will convene study participants at a forum designed to further study efforts beyond analysis. We plan a development activity between reformers and university leaders to address opportunities and barriers to lower school reforms.

We will report our findings widely in the practitioner, policy, and research communities through presentations at national meetings hosted by NCRVE, AVA, AVERA, and AERA. We also expect to produce journal articles for policy-oriented journals. The RAND policy brief will be written in nontechnical language to promote interest in the general policy community. Dissemination will also occur with the convening of the forum.

Area III:
Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education

Project RIII.1
Learning to Work: In School and on the Job

Project Director: Cathy Stasz, RAND (Year 1 of 2)

Keywords: school-based learning; work-based learning; model development: learning

Recent school reforms call for redesigning educational programs to include both school- and work-based learning components, but precise details about the nature of learning and teaching—what is to be learned or how it should be taught—have not been worked out. In this study, we propose to develop a normative model—or learning paradigm—that can aid in the design of both school- and work-based education and training programs. The model will be based on recent research in cognitive science that we have recently applied to describe effective classroom teaching in vocational and academic classrooms. In this study we will extend its application to work-based learning, by conducting in-depth research in targeted programs using ethnographic and case study methods. The unified model can provide a tool for designing and evaluating a student's *entire program*, including school- and work-based components, to ensure that the necessary content is covered and that the instructional activities support effective learning and program goals. The project includes development activities with local School-to-Work programs and will produce practical guidelines for program designers.

Three publications will be developed. The primary product is a guide for practitioners (e.g., teachers, trainers, curriculum developers, and school-employer curriculum teams) that will focus on the instructional design principles derived from the model and provide specific examples of teaching and learning in classrooms and worksites, and outline an instructional design process.

A second document, a technical report geared to the research community, would describe the theory and research that underlies the normative model, as well as the findings from the case study analyses.

Third, we will write a short policy brief that discusses implications of the research for policy. These briefs will be widely disseminated to the policy community.

The written documents discussed above will be disseminated through regular RAND and NCRVE dissemination channels. In addition to NCRVE's mailing list of over 16,000 entries, RAND's Institute on Education and Training (IET) maintains an online database list of over 4,000 names; both lists are linked to institutional type and specific areas of interest. Thus, we can target dissemination to specific individuals (e.g., state directors of vocational education and teacher/educators). Research findings from the project will be disseminated through professional meetings such as AERA and AVA and at NCRVE's proposed annual research conference. Practitioner-oriented materials will be disseminated through meetings and workshops with NCRVE's Urban Network sites, at AVA pre-sessions, at the NCRVE-proposed annual practitioner conference, and through the Workforce LA consortium. Dissemination will also occur as part of the development activities discussed earlier. Finally, we can disseminate preliminary findings at the proposed Skills and Skill Standards Conference/Workshop.

Project RIII.2
Linking the NCTM Standards to Emerging Vocationalism

Project Directors: L. Allen Phelps and Victor M. Hernández, University of Wisconsin
(Year 1 of 2)

Keywords: skill standards; integration; mathematics

This two-year project will examine the nature and character of efforts to integrate mathematics/vocational education learning initiatives in secondary schools and postsecondary institutions which have adopted the Curriculum and Evaluation Standards of the National Council of Teachers of Mathematics (NCTM). During the first year, promising sites will be identified to produce new insights regarding the links between vocational education and mathematics-integrated learning and teaching experiences occurring in both school- and work-based settings, based on NCTM standards. During the second and third semesters of the project, case studies of five to six programs with significant integration efforts representing different geographical distribution (e.g., urban,

rural, and suburban) will be conducted to study the effectiveness of applied models of integration and different curriculum materials at both the secondary and postsecondary levels. Our approach will be based on collaborative research where researchers and teachers work closely in partnership.

This project will be a joint undertaking of the Center on Education and Work and the National Center for Research on Mathematical Sciences Education.

Deliverables

The major products of the project will include the following:

1. Detailed case studies of four innovative programs/initiatives in which the NCTM Standards are being used

2. A "national agenda" document produced by project participants in collaboration with the National Steering Group and project staff

3. An evaluation report of curriculum materials being used on effective mathematics integration

4. A set of guidelines for staff development on mathematics integration outlined by project participants in consultation with National Steering Group and project staff

5. A videotape featuring key aspects of selected NCTM/vocational education integrated programs

Other deliverables will include the following: conference presentations; conference papers; literature review; journal articles; texts of paper presentations, evaluation of promising programs; telephone and mail surveys; and instruments for program evaluation, interviews, and surveys.

No major dissemination activities are planned for 1995.

Project RIII.3

High Performance Learning in the Fast Food Industry

Project Directors: James Stone and Theodore Lewis, University of Minnesota
(Year 1 of 2)

Keywords: work-based learning; high-performance learning

This quasi-experimental study is designed to examine the impact of specific employer interventions on the occupational and academic development of young people working in the fast food industry. These interventions include "pay for learning," worker empowerment, parental involvement, and adult mentors.

Presentations will be made at appropriate conferences of practitioners and researchers (e.g., AERA, SRA [Science Research Associates], AVA), to specific audiences (e.g., NASSP [National Association of Secondary School Principals], NASB [National Association of School Boards]), and at appropriate business conventions (e.g., NRMA). At least one of these presentations will involve one or more models for connecting this type of work to school.

The final product will be a report of the study. Part of this report will contain recommendations regarding strategies for reshaping the youth-dominated workplace so that adolescents develop desirable social and workplace behaviors and knowledge.

We envision multiple audiences who will be interested in the results of this study. These include the following groups:

- The business community. We propose to present the results of our study to various industry groups at the national level with special emphasis on cost-effective and low impact activities.
- School-to-Work transition planners and policymakers at the state level
- Local area STWO Act coordinators/facilitators
- Teachers

Area IV:
Students in Vocational Education

Project RIV.1
Studies of Exemplary "Holding Power" Vocational Programs

Project Directors: Robert Crain and Robert Thaler, Teachers College, Columbia University
James R. Stone, University of Minnesota (Year 1 of 2)

Keywords: dropouts; exemplary programs

This study is designed to identify vocational education practices which reduce absenteeism and dropout rates. It does so by making case studies of successful and unsuccessful vocational programs, using data from New York City programs with high and low absenteeism and dropout rates. Visits will also be made to vocational programs in three districts in other parts of the United States.

These results, as well as results from other data analysis of New York City career magnet schools, will be disseminated and used for development work with federal officials and with local and state officials in New York and elsewhere.

A short report summarizing the research on dropouts will be produced.

If one or more *New York Times* articles result from the study, we will set up a system of providing callers with brief abstracts of the research and advise them to purchase reports from NCRVE. We will accept invitations to speak at conferences. We also will do our best to use federal agencies as resources for dissemination. New York City officials are sometimes asked to provide assistance to other school districts in developing lottery-based admissions systems for their magnet schools; we may accompany officials on some of their visits to other school districts.

Project RIV.2

Voices of Diversity: The Students of Vocational Education, 1993–1997

Project Director: Victor M. Hernández, University of Wisconsin (Year 3 of 5)

Keywords: student experiences; diversity

The purpose of this project is to build an understanding of the character of experiences acquired by students through programs which represent "New Vocationalism," with particular emphasis on the experiences of students who are traditionally underrepresented in the literature (e.g., female, Hispanic, and Asian students). The experiences of primary interest are those obtained by students who are enrolled in programs with systematic links between vocational and academic knowledge, school- and work-based knowledge, and secondary and postsecondary institutions. This longitudinal project examines the experiences of 150 vocational-technical students over a $3^1/_2$ year period. Data collection is underway in eleven sites located in major geographical areas of the country. Students are being interviewed every six months, and follow-up research activities will be conducted. In some cases, students will be asked to complete special surveys or writing assignments on a quarterly basis in lieu of interviews. Information compiled will be used to describe the programs and institutions in which the students are enrolled. Data will be complemented by direct observations and note-taking by field researchers and site coordinators.

Qualitative techniques will be used to collect and analyze data, and to identify themes as an ongoing process. Emerging themes will be cross-examined using quantitative techniques and data from a nationally representative longitudinal study (NELS 88, first follow-up 1990).

Deliverables

Thematic reports will be written in such areas as (1) development of student career and academic aspirations, (2) student experiences and perspectives on authentic learning opportunities, (3) students' perspectives on emerging vocational programs, and (4) the "voices" of the students and analyses of their perspectives on relevant issues (e.g., tracking and social stigma, or the value of work-based learning experiences).

Dissemination plans include (1) presentation of preliminary results at various state, regional, and national conferences; (2) publication of thematic reports which will be produced at various stages of the project; and (3) preparation of journal articles and newsletters.

Project RIV.3
An Analysis of Diversity Training Provided by Business and Industry

Project Directors: Rose Mary Cordova-Wentling and Mildred Barnes Griggs,
University of Illinois (Year 1 of 2)

Keywords: diversity training; work-based learning

Demographers predict that by the year 2000, 85% of the new workers will be a combination of immigrants, women, and non-European Americans. Increasingly, workplaces will face the same issues and problems that public schools have been facing with regard to understanding and utilizing the full range of human potential within this very diverse population. This two-year research project is designed to study a selected number of major employing companies with exemplary diversity training programs and diverse workforces in order to identify policies and practices that create work environments conducive to the development of all youth in school-to-work programs.

An in-depth literature review on diversity training will be developed the first year of this project.

The target audiences for this study's outcomes consist of vocational educators, School-to-Work directors, human resource directors, policymakers in education and business and industry, diversity trainers, and professional organizations (e.g., AVA, ASTD [American Society for Training and Development], NSPI, NAB [National Alliance for Business], HRD Academy [Human Resource Development Academy], NBEA [National Business Education Association], AERA). Dissemination of results will occur through presentation at professional meetings (education and business) and publications in research, business, and practitioner journals.

Area V:
Personnel in Vocational Education

Project RV.1
Facilitating School-to-Work Transition: Teacher Involvement and Contributions

Project Directors: B. June Schmidt and Curtis R. Finch,
Virginia Polytechnic Institute and State University (Year 1 of 2)

Keywords: school-based learning; work-based learning; school-to-employer connections

To meet the school-to-work goal of moving from isolated programs to a system that assists large numbers of students successfully make the transition to work, all school personnel must understand, support, and contribute to the effort. This study will examine the attitudes, expertise, and knowledge that teachers in collaboration with others, both in the schools and the workplace, must have to establish and sustain long-term links with employers that facilitate students' transition to work. Information about teacher involvement in and contributions to the facilitation of school-to-work transition will be gathered via community studies.

This field-based research will provide teachers with valuable information about the attitudes, expertise, and knowledge they will need to successfully fulfill their responsibilities in school-to-work programs. The study results will also benefit policymakers, teacher/educators, corporate training managers, and others by providing useful information about strategies that teachers can use to link schools and the workplaces for effective STW transition.

Deliverables

A working paper will be made available that describes how selected schools and communities have successfully involved teachers in School-to-Work transition efforts.

A research report documenting the research outcomes will be prepared that includes a framework and accompanying strategies to guide development of knowledge, attitudes, and expertise that both practicing and prospective teachers need to successfully interface with employers.

A practitioner guide focusing on practical application of the research results will also be prepared.

Dissemination activities will focus on making the NCRVE's clients aware of the project research report and the practitioner guide. These products will be made available through the NCRVE Materials Distribution Service. Product availability will be disseminated through various channels such as *CenterWork*, electronic networks, and related professional organization newsletters. The two products will be described at relevant national STW conferences and workshops. Additionally, project-related presentations will be made at national conferences such as the AVA convention and the AERA meeting.

Project RV.2
Identifying Change Agents:
Developing a Profile of Postsecondary Vocational Teachers

Project Directors: Dominic Brewer and Maryann Gray, RAND (Year 1 of 2)

Keywords: community colleges; educational reform

Teachers and administrators at postsecondary vocational institutions play a pivotal role as "change agents" in successfully promoting and implementing reforms. Building on previous NCRVE work, this study will gather new data via a nationally representative survey of postsecondary vocational and academic teachers and case studies of several community colleges in different stages of implementing vocational education reforms. Practitioner input will help guide this research design. The focus will be on faculty awareness of reforms aimed at changing education and training for work, their views on those changes, and their overall readiness to implement reform. The project contains specific development activities designed to assist community college practitioners in promoting reform.

A technical report will detail the project's methodology including survey instruments. It will present a quantitative and qualitative analysis of survey and case study data. Project conclusions and recommendations for development activities will be made.

A policy brief will summarize the project's findings, oriented towards postsecondary instructors and designed to assist in the effective implementation of reform through concrete suggestions of how to achieve an informed, supportive, and equipped faculty.

Based on the technical report, one or two articles will be submitted to academic journals.

Deliverables

The three deliverables will be widely distributed to an audience including appropriate national groups such as AACC, the League for Innovation in Community Colleges, AVA, state-level officials, and possibly to community colleges themselves. In addition, we will present our findings at professional meetings such as that of AERA.

Area VI:
Accountability and Assessment

Project RVI.1
Developing a Typology of Skill Standards Models

Project Director: Thomas Bailey, Teachers College, Columbia University (Year 1 of 2)

Keywords: skill standards; model development: skill standards development

The development of a national system of voluntary industry skill standards has become a central element in education reform. The purpose of this project is to develop a conceptual framework/typology which encompasses the different approaches to skill standards development, both in the United States and abroad. The many approaches that exist now can undoubtedly be simplified and categorized into a number of basic approaches. Such a classification effort has several benefits. It forces the analyst to differentiate the core components of an approach from the more peripheral ones, and establishes a smaller number of models to greatly facilitate diffusion and evaluation.

The project will be based on an analysis of existing skill standards systems in the United States, including the current DOL and DOE pilot projects. In conjunction with

that work, David Finegold at RAND will review experience with skill standards in Europe and possibly other countries.

In developing and disseminating the results of this project, we expect to work closely with the National Industry Skill Standards Board. Indeed, our goal is to develop a framework that the Board can use in its work. In addition, we expect that the results of this project will be useful for any practitioner and policymaker involved with the development and implementation of industry skill standards. These include staff at the Departments of Education and Labor who will be working with the Board and overseeing the pilot projects, state-level employees working on standards, and local-level program operators putting programs into practice.

A draft report will be developed which will be discussed at an NCRVE conference on skills and skill standards planned for the fall of 1995. (The draft will be revised [with appropriate additional research] to produce a final report in 1996.) In addition, a report on the international perspective will be produced in 1995.

This project will make extensive use of group and conference/meeting discussions in an effort to share and gather information. We will utilize current contacts and relationships with industry and union representatives, policymakers, substantive experts, and educators in our efforts to disseminate our results. The final report will be distributed to interested project directors involved in the DOE and DOL skill standards initiatives as well as policymakers, academic and research staff members, and education practitioners.

Project RVI.2
Which Alternative Assessments Hold the Greatest Promise for Vocational Education?

Project Director: Brian Stecher, RAND (Year 1 of 2)

Keywords: assessment, alternative

The goals of this study are (1) to investigate the potential of various forms of alternative assessment to meet the needs of vocational educators, and (2) to provide vocational educators with useful procedures for judging the applicability of alternative assessments in their own setting. The study will combine reviews of relevant literature with empirical investigations of portfolios, performance events, and other educational assessments.

A project report will be produced describing the analytic framework, illustrated with profiles of the alternative assessments studied.

The beneficiaries of this work include vocational educators at the local level as well as educational policymakers at the state and national levels. For those at the local level, the project will provide helpful guidance about the use of alternative assessments. For state and national policymakers, the project will evaluate the applicability of promising assessment options to the vocational setting and will offer some critical judgments about current vocational assessment prototypes.

The result of this project will be disseminated in the form of written materials and training workshops. In addition, we will present a one-half day training workshop and one or more hour-long presentations at national conferences. We also will work to develop the assessment expertise of staff associated with Workforce LA, an industry-education-community partnership coordinating school-to-work programs in Los Angeles County.

Project RVI.3

Case Studies of Skill Standards in Professional Education: Lessons from the Accounting Profession and Aviation

Project Directors: Thomas Bailey, Teachers College, Columbia University
Gary Hoachlander, MPR Associates, Inc. (Year 1 of 2)

Keywords: skill standards; school-to-employer connections

This project will consist of two related case studies, one in accounting and one in aviation. The accounting case study will be carried out under the direction of Thomas Bailey at Teachers College, while the aviation case study will be the responsibility of Gary Hoachlander at MPR Associates. Each of these case studies is described below.

Industry Skill Standards in Accounting

An expanded system of industry skill standards is one feature of the School-to-Work initiative that sets it apart from previous school reform models. Although there is widespread support for skill standards, there are many practical and implementation issues that have not been resolved.

The United States already has an extensive system of professional education providers that includes these skill standards and certification systems as well as widespread employer participation. The goal of this project is to study one case of professional education—the training and certification of accountants—in search of lessons for the School-to-Work model concerning skill standards and employer participation.

Studying professional training and certification in an occupation such as accounting will provide guidance in resolving many of the previously mentioned implementation issues as they relate to current STW initiatives.

This project will help to support and inform a companion project in this theme area, *Developing a Typology of Skill Standards Models* (Project RVI.1).

No public domain materials will be produced in 1995.

The audience for this project will be the diverse group of individuals, educators (researchers and academics as well as practitioners), trade and professional associations, employers, unions, and policymakers, and governmental regulatory and oversight agencies involved in the skill standards movement. We will utilize our initial findings in group discussions consisting of the above-mentioned participants to disclose any applications for professional training experiences in current efforts involving skill standards, certification, work-based education, and the broader context of STW reform. The general dissemination plans for this project will also be developed as part of the broader strategy of dissemination for the collection of NCRVE skill standards projects now under development. This strategy may include a conference on skill standards to be held at the end of 1995.

Industry Skill Standards in Aviation

GOALS 2000 calls for establishing a National Skill Standards Board to oversee the development of national standards for American industry. The first task of the National Skill Standards Board will be to develop a framework for building a national system, including guidelines for the types of standards that are needed and how they might be implemented.

Ironically, much of the development effort has proceeded thus far on the mistaken assumption that America has no experience with industry standards. Indeed, one of the best examples of national standards developed in partnership between industry and government is the U.S. aviation industry. Over the past 50 years, a comprehensive and detailed set of standards have emerged for pilots, air traffic controllers, airframe and power mechanics, and others. This experience, uniquely American, provides a rich history, which, if carefully mined, could yield important insights into the development of a national system of industry skill standards.

The primary purpose of this study is to use findings from the study of a major American industry with a long history of public/private development of skill standards to generalize about the kind of national system that would best suit a wide range of economic activity. Thus, the project is not about aviation per se, but, rather, the relevance of the development and use of standards in aviation to a more general system of national industry standards. We are especially interested in distinguishing the public and private purposes served by skill standards, the degree of occupational specificity that is

appropriate, the kinds of standards needed, and ongoing processes for ensuring that standards are relevant, fair, and able to be assessed reliably and consistently.

This project will help to support and inform a companion project in this theme area, *Developing a Typology of Skill Standards Models* (Project RVI.1).

The study will produce an interim report in December 1995.

The audience for this project is primarily state and national policymakers concerned with the development of industry skill standards. The Project Director is available to work with the National Skill Standards Board, as the agenda of that group begins to take shape during the coming years. The project's deliverables will be distributed to this board, as well as to related state-level groups working on industry skill standards. The results of the study should also be of interest to those working on various aspects of "alternative" assessment, especially performance testing, which has long been the cornerstone of certification in aviation. The Project Director will also participate in NCRVE-sponsored conferences on skill standards and make presentations at relevant sessions of national organizations, including AVA, AERA, and related groups.

Project RVI.4
NCRVE Annual Report on School-to-Work

Project Directors: David Stern, University of California, Berkeley
Thomas Bailey, Teachers College, Columbia University (Year 3 of 5)

Keywords: school to work; youth apprenticeship

Section 404(b)(2) of the 1990 Amendments to the Carl D. Perkins Vocational and Applied Technology Education Act requires that NCRVE "annually prepare a study on the research conducted on approaches that lead to effective articulation for the education-to-work transition." This activity will fulfill that requirement.

This study will also provide an initial description of local and state activities pursuant to the School to Work Opportunities (STWO) Act of 1994. In addition, it will

assist in the development of School-to-Work programs in at least two sites in states that are School-to-Work implementation sites.

Four distinct kinds of information will be included in the 1995 report: (1) a description of local and state activities under the STWO Act; (2) a synthesis of evaluation results from youth apprenticeship pilot projects; (3) an update of significant new research on other School-to-Work programs; and (4) formative evaluation of new School-to-Work implementation in at least two localities, probably in New York and Wisconsin.

Deliverables

The main product of this study will be the 1995 report to the federal authorities as required by the 1990 Perkins Amendments. It will be published as a report by NCRVE. It may subsequently be published by a commercial publisher as a book or monograph.

In addition to the distribution required by law (i.e., the Secretaries of Education, Labor, and Health and Human Services; the Senate Committee on Labor and Human Resources; and the House Committee on Education and Labor), complimentary copies of the report will be sent to a list of approximately 100 high-level state and federal officials and leading researchers in the field. The report will also be available for sale from the NCRVE Materials Distribution Service.

DEVELOPMENT PROJECTS

NCRVE's Development activities bring NCRVE's work closer to points of practice. Working face-to-face with practitioners, we facilitate change, learn about the requirements for change, and then spread the word to other sites in the next stage of readiness. As equal partners, NCRVE researchers and practitioners jointly determine the design and engineer, implement, and document innovative activities. Development activities provide us with the in-depth information the field demands for both implementation and the design of policy that best enables change.

Our development sites and their work will provide answers to the "what is it" "how to do it" questions, formative data, and a process for identifying additional issues and questions for further study. With this information we can create and provide richly informed descriptions, evaluations, and strategies. Ultimately, development activities

will create success stories, exemplars of policy translation, and will develop a cadre of leading practitioners.

A particular focus of the development work is to provide NCRVE with opportunities to test, refine, clarify, and more deeply understand the reform principles and ideas advocated and mandated in 1990 Perkins Act and the 1994 STWO Act. The central points are (1) integration of vocational and academic curriculum, (2) combination of work-based with school-based learning, and (3) creation of links between secondary and postsecondary education.

We have established the following benchmarks to assess our success in meeting this purpose. Through development activities we will

- deepen and expand our knowledge and vision of effective schools and colleges, gathering descriptive knowledge of programs and the complex implementation processes involved in creation, institutionalization, and replication.
- discover, through evaluation, the validity of our theories.
- synthesize our lessons from research, development, and training activities and therefore improve our ability to serve the field by creating and disseminating information that is more user-friendly.

To this end, researchers and practitioners play a variety of roles in the development of self-sustaining sites and the simultaneous study of reform. For researchers this includes coaching, mentoring, planning, training, evaluating, and developing local infrastructure. For practitioners, in addition to actual innovation, the list includes defining questions and design, and documenting change through data collection or journal writing. Equally important to development is an iterative process, cycling repeatedly between design, implementation, testing the design efficacy, and redesigning again.

Four different types of development activities are funded:

1. Initiatives to form more intensive long-lasting relationships by creating networks that will unite schools, colleges, and NCRVE as we all work toward implementing key ideas articulated in the 1990 Perkins Act and the 1994 STWO Act.

2. Activities which add a development component to NCRVE research projects.

3. Projects that improve NCRVE's capacity to respond to requests from the field for assistance in implementing the 1990 Perkins Act and the 1994 STWO Act.

4. Activities to collaborate with other organizations such as the Office of Vocational and Adult Education (OVAE) and state departments of education to discover answers to pressing questions from the field.

Area II:
Institutions, "Systems," Governance, and Policy

Project DII.1
New Designs for Two-Year Institutions of Higher Education

Project Directors: George Copa and William Ammentorp, University of Minnesota
(Year 1 of 2)

Keywords: community colleges; model development: community college design

The purpose of this project is to identify, analyze, and synthesize information from several sources in order to develop new designs for two-year institutions of higher education. The new designs will deal with such important issues as learner outcomes, learning processes, organizational structures, approaches that encourage partnerships and collaboration, staffing pattern, and cost and sources of funding.

The basic plan for dissemination will actually begin at the start of the project and continue through each phase given the nature of the process used and individuals involved collaboratively. Interim news releases will be used to give visibility and attract preliminary attention to the project. A major effort will be made specifically to plan the dissemination of the new designs for two-year institutions of higher education widely and boldly across the country. While the primary market will be institutions of higher education which have opportunities for major renovation or new buildings, the designs will also have implications for institutions with more modest improvements in mind. Another market will be policymakers, state and national agencies and organizations, and national leaders influential in the design of two-year institutions of higher education.

Deliverables

The deliverables will be an executive summary and a final report describing the educational specifications and supporting rationale for new designs for two-year institutions of higher education. The executive summary and final report will be produced at the end of 1996.

Project DII.2
An Employment-Related Agenda for Community Colleges

Project Director: W. Norton Grubb, University of California, Berkeley (Year 1 of 2)

Keywords: school to work; community colleges; technical assistance: employment issues

This two-year project will work with the League for Innovation in the Community College on an employment-related agenda for community colleges, providing information to administrators and instructors about state and federal legislation and examples of good practice. While the project will examine several topics related to workforce development, the first topic will be the nature of community college participation in school-to-work programs. The results will be used not only for publications of NCRVE and the League, but also for conferences and workshops sponsored by a variety of organizations for community college personnel wanting to develop workforce programs.

Deliverables

There is a distinction between two types of results from this project: deliverables to the NCRVE and materials published by the League. Materials published by the League need to go through their own editing and review process, even though they may be based on materials developed with sponsorship of the NCRVE. Deliverables to NCRVE, on the other hand, will report the results of synthesis and research performed by NCRVE researchers and—while they may serve as the basis for League publications—will not have gone through the League's process of publication. Therefore, this project will generate more results than simply the deliverables mentioned below.

For the first year of this project, there will be a *minimum* of one deliverable, summarizing the results of examining school-to-work programs in community colleges. There will probably be more deliverables, or one longer deliverable covering other topics related to the occupational roles of community colleges (e.g., curriculum integration, contract education, or Tech Prep). However, the specific nature of these additional topics beyond school-to-work cannot be determined until the advisory committee for this project convenes and makes some initial decisions.

The results of this project will be disseminated through the regular dissemination channels of the NCRVE. However, the real power of this project will be using the network of the League for Innovation to disseminate the results to administrators and faculty in community colleges across the country. Subject to the approval of the League, this project anticipates the publication of at least one League monograph and a League newsletter; presentations at the annual meetings of the League; and incorporation of the results in the outreach efforts being undertaken by NCRVE, the California Institute on Human Services at Sonoma State University, and the National Council on Occupational Education.

Project DII.3
Urban Network Development Project

Project Director: Erika Nielsen-Andrew, University of California, Berkeley
(Year 3 of 5)

Keywords: network development; integration; school to work; school-to-employer connections; Tech Prep; technical assistance: school-to-work issues; urban schools

The purpose of this project is to deepen and intensify NCRVE's relationship with schools and institutions around the country engaged in the implementation of three guiding ideas: the integration of (1) vocational and academic education, (2) classroom- and work-based learning, and (3) secondary and postsecondary institutions. Building upon the efforts of the Urban Schools Network, we will (1) expand our teams to deepen the capacity of the entire school and district, (2) intensify our assistance to schools through field consultants and cross-team work, (3) unite our efforts with other

organizations to better assist the teams, and (4) make better use of performance data to document school progress and create a culture of continual learning and improvement.

Deliverables

This project will have several deliverables: (1) site reports from both urban network and partnership academy sites for a total of 20; (2) three briefings (within NCRVE publications) and two journal articles about our lessons from network schools. Briefing examples include the development of products that provide blueprints for action, provide a firsthand view of workable models of reform, organize exemplary communities as a clear and forceful voice in policy, or integrate study communities into all aspects of NCRVE advocacy, further research, or technical assistance. Briefings and articles will prepare the field and inform policy of central design elements and expansion strategies, provide detailed profiles of key features and change strategies of study sites, function as "how to" guides on design, or report on research findings to add to the NCRVE data bank on strategies that work. We need deliverables that effectively convey the rich body of information and results discovered in these schools; (3) an end-of-year report that links both summative and formative data about the urban schools network. This document can form the basis of a proposal to secure more funds, market our successes, and redesign our efforts for the following year; and (4) quarterly reports.

Dissemination of information regarding the Urban Schools Network and potential Alliance will be a major responsibility of this staff. The primary avenues for dissemination of information will be direct mailing, the NCRVE newsletter, and major educational journals.

Area III:
Curriculum and Pedagogy: Innovative and Effective Practices in Vocational Education

Project DIII.1
National Consortium for Product Quality in Vocational Education

Project Directors: Barbara Dougherty and Margaret Ellibee, University of Wisconsin
(Year 3 of 5)

Keywords: curriculum standards; exemplary curriculum

During 1995, the NCPQVE will continue to move forward in accomplishing three key objectives: (1) demonstrate, evaluate, and refine (if necessary) standards for quality curriculum products designed for secondary and postsecondary vocational education programs; (2) disseminate those standards to the field; and (3) identify, review, and disseminate information on quality products. To date, the project has established initial content and pedagogy standards for vocational education from which quality curriculum products can emerge.

Deliverables

The deliverables available within the third year of the project include the following:

1. Activities

   Individual Presentations—AVA, Midwest Leadership Conference, NNCCVTE Concurrent National Meeting, VIMS, [Vocational Instructional Materials Section], AVERA, and upcoming School-to-Work conferences.

   Inservice Activities—As requested by local school administrators and state staff, but will be dictated by budget and time constraints.

2. Audiovisual/Nonprint Materials—The NCPQVE Curriculum Review Instrument adapted to software for reviewer use.

3. Information Analysis—Update of the literature review included in the *Curriculum Quality Standards for Vocational Education: A Guidebook*, as well as the *Annotated Bibliography* on research related to the design, development, and implementation of curricula standards.

4. Product Profiles—Highly rated curriculum products.

5. Newsletters—At lease one issue of *NCPQVE Standard Times*.

6. Adaptation for practitioners of the *Curriculum Quality Standards for Vocational Education: A Guidebook.*

7. Evaluation Instruments—Curriculum review instrument, product implementation assessment, and evaluation form of the *Curriculum Quality Standards for Vocational Education: A Guidebook*; Train-the-Trainer Packet Evaluation.

8. Train-the-Trainer Materials—Packet.

Project information dissemination will initially occur through the proposed newsletter(s) to solicit product reviewers and products for the field-test process. Articles will be submitted to a variety of professional newsletters describing the developmental process for establishing the standards and the certification process. An AVA preconference workshop is anticipated. Product profiles of products receiving a Phase II Review will be prepared for inclusion in the project newsletters and in a separate report following the field-test outcomes. The *Guidebook* will be disseminated by the NCRVE. The NCPQVE Train-the-Trainer Packet will be disseminated through the project due to continuous field-testing.

Project DIII.2

Learning All Aspects of the Industry: Curriculum Practices and Processes

Project Directors: Curtis R. Finch and Nevin R. Frantz, Virginia Polytechnic Institute and State University (Year 1 of 2)

Keywords: all aspects of the industry; exemplary curriculum; technical assistance: all aspects of the industry; curriculum/training material

The importance of student exposure to all aspects of the industry (AAI) has been clearly emphasized in the Carl D. Perkins Vocational and Applied Technology Act of 1990. This legislation provides educators with opportunities to design and implement AAI curricula. Unfortunately, even though AAI has evolved from a rich historical and conceptual base, many educators have been reluctant to incorporate AAI into their schools. To some degree, this difficulty is being addressed by the AAI coalition project funded by the Joyce Foundation. The coalition project objectives include documenting and clarifying models in use to implement AAI; preparing a resource guide that informs teachers, administrators, and policymakers about industry work; and conducting workshops and disseminating findings.

The proposed project builds directly on the coalition project. Drawing from the AAI implementation models and industry work guide produced by the coalition, this project will focus on three areas: (1) identifying curriculum practices and processes that focus on AAI in the long term (two to four years); (2) preparing a practitioner guide that describes these long-term curriculum practices and processes, the ways they are utilized, and under what conditions they have the potential to be most effective; and (3) assisting educators at selected school sites in the implementation of long-term AAI curricula. Information about AAI curricula will be gathered via interviews with educators at selected locations around the United States where AAI long-term curricula are operational.

The analyses we complete will ultimately evolve into a practitioner guide. The guide will describe what we have learned in the identification of long-term AAI curricula that are of value to those who intend to implement AAI in their schools. The guide content will include ways that AAI curriculum content may be identified and organized and sequenced in meaningful ways. Once the guide has been prepared in prototype form,

it will be used in conjunction with our AAI curriculum assistance activities. To accomplish this we will identify three to four school sites that are ready to implement AAI curricula. If possible, these sites will be located reasonably close to the Virginia Tech site to reduce travel and time costs. In the selection of curriculum sites, consideration will be given to collaborating with a school group or consortium such as the Southern Regional Education Board's Schools That Work consortium. During our assistance visits, we will provide educators with assistance in a variety of AAI implementation tasks ranging from determining AAI curriculum content and sequence to helping teachers decide how they can incorporate AAI in their teaching.

Project outcomes will be disseminated in two different ways. At the conclusion of year two, the prototype practitioner guide will be revised and made available for purchase through the NCRVE Materials Distribution Service (MDS). Further dissemination of the guide will take place as part of the curriculum assistance activities. Additional dissemination will be conducted through presentations at national conferences (e.g., AVA and AERA) and the preparation of project-related manuscripts for submission to popular and refereed journals.

In terms of intended audiences, the practitioner guide will be of primary value to teachers of vocational and academic subjects in high schools and technical and community colleges. However, it may also be used by administrators, curriculum developers, and others who are responsible for implementing AAI in their schools.

Area IV:
Students in Vocational Education

Project DIV.1
Case Studies of Successful Urban Schools

Project Directors: Carolyn Maddy-Bernstein, Mildred B. Griggs, and Thomas R. Wermuth, University of Illinois
John Gugerty, University of Wisconsin (Year 1 of 3)

Keywords: exemplary programs; urban schools

This project is designed to work with two groups of urban educators—(1) those who have successfully accomplished transforming/reforming their comprehensive secondary schools and (2) those in the early stages of reformation. In 1995, we will conduct a multisite qualitative study of three urban *comprehensive* high schools that have included vocational and technical education in successful educational reform efforts. Schools selected for the study will have student populations typical of inner cities. Case study methodologies will be utilized to explain the development and implementation of innovative and promising practices in the selected sites. Each step of the proposed project will be guided by a steering committee of urban practitioners in addition to researchers experienced in urban educational environments and educational reform efforts.

The site case studies will explain the processes and procedures that urban comprehensive high schools have used to implement educational reform efforts. It will also describe the role of vocational education programs within comprehensive high schools that result in positive outcomes attained by students from diverse populations.

The NCRVE's Office of Student Services (OSS) will publish three *Office of Student Services BRIEFS* summarizing (1) findings from the case studies, (2) themes that emerged during the cross-site analysis, and (3) highlights from the developmental handbook.

The staff of the project will submit proposals to one national conference during Year 1 (e.g., AVA).

In addition to publishing the three NCRVE monographs described previously, it is anticipated that project staff will submit articles describing project results to appropriate journals such as *Vocational Education Journal*, *The Journal for Vocational Special Needs Education*, *Education Evaluation and Policy Analysis*, and *Career Development for Exceptional Individuals*.

At least five dissemination approaches (subject to additional recommendations from the steering committee) will be utilized to obtain a broad distribution of findings and products associated with the proposed project. These approaches are designed to reach both researchers and practitioners interested in successful reform efforts at urban comprehensive high schools serving students from diverse populations. Those five approaches include (1) the publication of NCRVE monographs; (2) the publication of *Office of Student Services BRIEFS*; (3) a collaboration with organizations with interests in urban issues; (4) presentations at local, state, regional, and national conferences and meetings; and (5) the publication of journal articles which will also be annotated in the ERIC system. Each of the five dissemination approaches will be detailed below.

The NCRVE monographs will be disseminated through the Center's Materials Distribution Service.

The NCRVE's Office of Student Services (OSS) will publish and disseminate three *OSS Briefs*. *OSS Briefs* are delivered to over 8,000 individuals on the OSS mailing list free of charge.

The project staff will work collaboratively with organizations interested in promoting school reform in urban areas (e.g., The Council of the Great City Schools, National Association of Vocational Education Special Needs Personnel).

As previously mentioned, project staff will submit proposals to speak at one national conference during Year 1.

The fifth mode of dissemination will be through the submission of journal articles describing project methodologies, results, and findings. Attempts will be made to disseminate results through both refereed research-oriented and practitioner-oriented journals and publications.

Area V:
Personnel in Vocational Education

Project DV.1
Preparing Teachers to Design Classrooms That Work:
A Mini-Sabbatical for High School Teachers and Teacher Trainers

Project Directors: Kimberly Ramsey and Cathleen Stasz, RAND (Year 1 of 1)

Keywords: school to work; integration; instructional strategies; work skills; professional development

Traditional teacher training and staff development practices pose a barrier to widespread adoption of classroom design principles and teaching practices defined by classrooms that impart generic skills and attitudes. Training and staff development activities leave many teachers largely unprepared to experiment with mixing subject-specific and generic skills; designing situated learning activities; or taking on innovative, flexible teacher roles. As a result, new teachers and experienced teachers rarely acquire the skills and worksite experiences they need to design classrooms that offer the perspective of a modern and highly skilled workplace. The proposed project asks the question: *What methods might practitioners use to assess and communicate about workplace skills?* Building on previous work on learning and teaching generics skills for the workplace and our current study of skills and attitude requirements for work, the investigators propose a one-year follow-up development project to design and conduct a mini-sabbatical for high school teachers and teacher trainers. The proposed project involves redesigning our research tools for use by practitioners, conducting the mini-sabbatical, and evaluating the mini-sabbatical. The purpose of the project is twofold: first, teachers need practical tools to introduce workplace skills into the classroom; and second, deeper inquiry into vocational-academic integration and School-to-Work initiatives is needed as these reforms catch hold.

Deliverables

The primary product is a guide for practitioners and trainers. We will also produce a report aimed toward researchers and policymakers. Other anticipated dissemination activities include presentations at national meetings hosted by AVA, NEA,

AFT, AVERA, and AERA. In addition, we will introduce the materials in NCRVE workshops held for our Urban Network schools and other groups.

To promote widespread dissemination of the project and to promote deeper inquiry into curricular integration and School-to-Work initiatives, we have contacted Mr. David Crippens, Senior Vice President of Educational Enterprises at KCET, a Los Angeles-based public television station, to collaborate on a documentary of the mini-sabbatical. He has indicated his interest, and we plan to collaborate with him, primarily providing technical assistance.

Area VI:
Accountability and Assessment

Project DVI.1
At Your Fingertips: Using Data for Local Program Improvement

Project Directors: Karen Levesque and Denise Bradby, MPR Associates, Inc.
(Year 1 of 2)

Keywords: accountability; curriculum/training material

This project will develop a set of training materials—*At Your Fingertips: Using Data for Local Program Improvement*—for dissemination nationwide. The project will produce (1) a participant's workbook of explanations, exercises, examples, and resources; (2) a trainer's manual containing overheads, scripted material, and instructions; and (3) a videotape that illustrates the concepts portrayed in the workbook. These products may be used either separately or in conjunction with one another to reach a wide audience and satisfy a broad range of needs.

No public domain materials will be produced in 1995.

Several workshops will be held: a Spring Workshop Series of two workshops, two summer conference workshops, a Fall Workshop Series of two workshops, and a winter conference workshop.

Our dissemination plans include training a number of school teams and district- and state-level trainers during the course of developing the training materials. To reach the administrators and instructors who are ultimately responsible for managing and improving programs, the materials produced will provide clear step-by-step guidelines and will incorporate a number of different media, including print and audiovisual forms. Furthermore, the materials developed will also be suitable for training trainers who work with local personnel. Teacher and administrator training institutions and state-level data systems administrators may also benefit from the materials.

PART TWO: DISSEMINATION AND TRAINING

As NCRVE enters Year Three of its current grant period, its dissemination and training program has three major goals:

1. better *usability* of products and services by the NCRVE's different audiences
2. improved *accessibility*, especially by practitioners and policymakers
3. increased *visibility* for NCRVE as a whole and products and services in particular

To accomplish these aims, NCRVE's dissemination and training program will emphasize three main strategies:

First, we will devote substantially more resources to translating the results of NCRVE research into a small number of synthesized, targeted, carefully designed products that highlight and focus NCRVE findings and recommendations.

Second, we will undertake a major redesign and upgrading of the NCRVE materials that are widely distributed. These materials include *CenterWork*, *CenterFocus*, brochures, and marketing materials.

Third, we will plan and conduct a series of public presentations, including national conferences and policy briefings, designed to highlight NCRVE work and engage a variety of research, practitioner, and policy audiences in discussions about the Center's work.

To help realize these objectives, the Dissemination and Training agenda for 1995 through 1997 will consist of three major programs:

- Dissemination
- Student Services
- Professional Outreach

Together these programs combine a wide range of activities mandated by the Perkins Act, including the following:

- teacher and administrator training and leadership development
- technical assistance to improve the effectiveness of programs serving special populations
- needs assessment, design, and implementation of new and revised programs with related curriculum material to facilitate vocational-academic integration
- evaluation and follow-through to maintain and extend quality programs
- assistance to programs and states on the use of accountability indicators, including appropriate and innovative performance standards
- delivery of information and services using advanced technology
- development of processes for synthesis of research
- dissemination of exemplary curriculum and instructional materials
- technical assistance in recruiting, hiring, and advancing minorities in vocational education

Dissemination and Training Programs

Dissemination Program

Program Director: Peter F. Seidman, University of California, Berkeley (Year 3 of 5)

Keywords: information dissemination; publications; referral/information brokering

The Dissemination Program is an integral part of NCRVE's infrastructure, offering to its constituencies a consistent, reliable method of translating and brokering R&D-based, practitioner-based, and policy-based knowledge in ways useful to these persons. In addition, the activities of the Dissemination Program encourage the development of social networks among all stakeholders, again, so that knowledge is distributed and exchanged in useful, usable ways.

Thus, the Dissemination Program attempts to strike a balance among user-driven responsiveness, targeted dissemination, and social networking, organizing itself around three basic components: (1) knowledge distribution, (2) knowledge acquisition, and (3) knowledge collaboration. Each of these components uses a varying blend of several approaches including database development and use, information brokering, publications, marketing/promotion, direct interpersonal linkages, and electronic communications.

Knowledge Distribution

Knowledge distribution is the one-way distribution of knowledge produced by NCRVE. The Dissemination Program engages in the following activities in order to effectively distribute knowledge to its user communities:

- product review, revision, production, distribution
- knowledge synthesis
- product and Center promotion/marketing and public awareness

The activities of NCRVE generate a variety of primary research, development, and training materials as well as materials derived from these primary outcomes, all of which must be made available to educators, researchers, business/industry/labor,

policymakers, and interested citizens. The Dissemination Program operates NCRVE's product quality assurance and control system, which includes the review, revision, production, and distribution process for the Center, resulting in the distribution of quality materials.

The NCRVE MDS produces, markets, and distributes all primary and most derived documents funded by the Center. MDS operates as a partially subsidized (as compared to true cost-recovery) entity. MDS is operated under subcontract with Western Illinois University.

An electronic archive of selected Center publications is supported as a component of VocServe, the Dissemination Program's public-access bulletin board system. The Dissemination Program will continue to offer NCRVE publications and other information via alternative electronic means such as file transfer protocol (ftp) archives, gopher servers (maintained by NCRVE and/or other organizations such as AskERIC), and World Wide Web (WWW) servers.

Derived Materials

Derived materials result from a formal translation process that develops spinoffs from project outcomes, or summarizes and synthesizes materials useful to and usable by NCRVE's user communities. Formats include such approaches as newsletters, brochures, briefs, working papers, and information packets.

Promotion/Marketing and Public Awareness

The Dissemination Program has the task of marketing both the Center's publications and the Center itself. The Dissemination Program uses both printed materials and other marketing tools such as conferences, an 800 telephone line, electronic "advertising," and a Public Information Officer Network. Printed materials include periodicals, brochures, information packets, various publications promoting NCRVE documents, the complimentary distribution of documents to targeted audiences, and advertorials (institutional advertisements in large publications such as *Education Week*).

The Dissemination Program provides a publicity venue for the entire Center through publication of a brochure, which describes the entire Center; a yearly *Agenda* and

Human Resource Directory, which respectively describe NCRVE's mission and areas of work; the NCRVE's personnel and their areas of expertise; and conference display booths. The *Products Catalog*, topical mini-catalogs, and *New Publications* flyers (mailed quarterly to targeted audiences) promote NCRVE publications across all programs. The Public Information Officer Network is used to link the Public Information Officers and NCRVE site directors so that Dissemination Program-generated press releases can be widely distributed to regional and national audiences.

Knowledge Acquisition

Knowledge acquisition involves assisting NCRVE's customers to access information. The major technologies the Center will use to implement knowledge acquisition are

- information brokering.
- national vocational education databases.
- electronic communications.

Information Brokering

The overall mission of information brokering is to operate as an intermediary for a variety of information services, products, and human resources—brokering information to educators, researchers, policymakers, and business/industry/labor.

To carry out the Dissemination Program's brokering mission of providing access to a variety of information services and products, the Dissemination Program will

- search NCRVE-maintained databases.
- seek resources, data, and information over electronic networks.
- participate in partnerships with relevant information clearinghouses (e.g., as an ERIC Partner in the ERIC Clearinghouses on Adult, Career, and Vocational Education).
- maintain a referral network among all NCRVE sites.

The Dissemination Program maintains an 800 number for brokering. The other major channel for brokering requests as well as responses is through electronic communications. This brokering capacity is achieved through VocServe and VOCNET as well as through membership in major relevant electronic discussion groups.

Electronic Communications

Electronic communications are used to receive information requests, to respond to these requests, and to seek information for customers in need of such information for decision making. The Dissemination Program maintains its own public bulletin board system (VocServe); its own listserv, VOCNET; a file transfer protocol (ftp) archive; a gopher server; and a WWW server. Additionally, memberships are maintained in relevant electronic discussion groups and other systems managed by other organizations.

Electronic communications are used in a number of ways to deliver information. For example, NCRVE events and products (e.g., conferences, R&D reports, and videotapes) are marketed via electronic media; requests for information are received and answered electronically; and more extensive data in electronic form (e.g., data sets and texts of publications) are electronically archived, accessible to all electronic network users.

Knowledge Collaboration

Knowledge collaboration promotes the multiway flow of NCRVE-produced knowledge. The key implementing approaches the Center will use in encouraging this flow are

- electronic communications.
- linkages with other key knowledge transfer networks.

Electronic Communications

NCRVE promotes and facilitates the exchange of information among itself and its user communities by electronic means. The Center participates in BITNET/Internet discussion lists and in existing practitioner networks in order to maintain contact with those user groups, but the bulk of the Center's electronic knowledge distribution, acquisition, and collaboration efforts are channeled through VocServe and VOCNET.

The VocServe System

The knowledge collaboration facilities of the VocServe system distribute knowledge, assist NCRVE's customers to access information, and result in shared experience in which the distinction between knowledge producer, translator, and user becomes irrelevant.

BITNET/Internet

VOCNET provides a major forum for discussion of vocational education issues for BITNET/Internet listserv users. The Dissemination Program staff also participates in relevant BITNET/Internet discussion groups which deal with education and training issues. Through such memberships, the NCRVE monitors discussions—participating as appropriate—drawing interested NCRVE staff into the discussions.

Practitioner Networks

NCRVE, through its participation in practitioner networks, shares in user-driven discussions. The Center encourages such users to communicate directly with Center persons (via VocServe if possible), while simultaneously transferring outcomes of such discussions to relevant Center personnel, encouraging them to communicate directly with the practitioner networks. The Dissemination Program encourages collaboration among the state/regional systems themselves via VocServe.

Linkages with Other Key Knowledge Transfer Networks

NCRVE collaborates with other key knowledge transfer networks in order to more effectively integrate knowledge producers, transfer agents, and users into a shared effort at developing and using knowledge generated through formal dissemination activities.

The Dissemination Program will continue to maintain and strengthen linkages with the following entities:

- the National Network for Curriculum Coordination in Vocational and Technical Education
- the OERI Regional Laboratories

- the ERIC Clearinghouses on Adult, Career, and Vocational Education; Junior Colleges; Rural and Small Schools; and Urban Education
- the Council for Educational Development and Research
- the Education Writers Association
- the National Diffusion Network
- the National Dissemination Association

Deliverables

The following are deliverables of the NCRVE:

- *CenterWork*—NCRVE's quarterly newsletter
- *Change Agent*—NCRVE's quarterly digest of Center publications
- Advertorials placed quarterly in *Education Week*
- *Products* catalog and smaller topical products catalogs, revised as products are published or new topics arise
- *New Products Flyers* targeted to specific audiences; sent quarterly
- Press releases: number and timing dependent on publication or event's timelines
- The *Reprint Series* of published journal articles, book/monograph chapters, op/ed pieces, and so on based upon NCRVE-funded activities; number determined by articles published and forwarded to the Dissemination Program
- *Working Papers Series*: number determined by articles published and forwarded to the Dissemination Program
- *The 1995 Agenda for the National Center for Research in Vocational Education* abstracts all Center activities; published as soon as possible after federal approval of yearly grant

- *The Human Resource Directory* lists contact information for and expertise of all NCRVE professional staff; published as soon as possible after federal approval of yearly grant

Professional Outreach Program

Program Director: Susan L. Faulkner, University of California, Berkeley (Year 3 of 5)

Keywords: professional development; conferences

NCRVE is committed to a Professional Outreach Program (formerly the Professional Development Program) that will assist secondary and postsecondary educators, offering researchers, policymakers, and practitioners from both vocational and academic programs the opportunity to develop their professional capabilities.

The Professional Outreach Program staff continues collaborative efforts between the NCRVE and other national organizations involved in professional outreach activities at both the secondary and postsecondary levels. The activities that follow will extend the cooperative relationships in the Center's Professional Outreach Program network.

Skill Standards Conference

A fall conference on skill standards will be sponsored by NCRVE. This two-day conference, aimed at selective, highly respected members of the larger education community, has two objectives: (1) reassessment of the skill standards movement and (2) an analysis of what works and what stands in the way of broader implementation. This conference seeks to assist in the work of the National Skill Standards Board by showcasing the Center's work as well as others in the field.

Practitioner Conference

This annual summer practitioner conference is cosponsored by NCRVE and Jobs for the Future. The conference audience will consist of 1,500 local policymakers and educators (including superintendents and chancellors, board members, administrators, and vocational and academic faculty). One of the purposes of this conference is to interact with practitioners in a review and discussion of NCRVE work and its relevance

to and applications in practice. Another purpose is to pilot the recent NCRVE development product, *Education for Work Curriculum Project*. The objective of this project is to build on NCRVE's collective knowledge of reforming schools through the integration of vocational and academic education. This project can be used to develop practitioner materials for local level administrators and teachers to use in implementing educational reform in high schools.

AVA Pre-Sessions

AVA pre-sessions are organized and marketed by the Professional Outreach Program staff. Topics are linked with current Center research and development efforts.

AACC Pre-Sessions

AACC pre-sessions are organized and marketed by the Professional Outreach Program staff. Topics are linked with current Center research and development efforts.

Technical Assistance System

Technical assistance activities are combined efforts among all NCRVE researchers, development personnel, program staff, and practitioner linkages. Requests for technical assistance are processed through the Professional Outreach Program office. Center Site Directors furnish the Professional Outreach Program office staff with names and areas of expertise of individuals at their institutions as well as the names of practitioners who are available and have the credentials to provide technical assistance to the field. Those requesting technical assistance are linked with those who are qualified and available to provide the technical assistance.

Professional Outreach Program staff will work closely with the OSS in providing technical assistance to the field. OSS (the former NCRVE Office of Special Populations) has served as the sole national technical assistance center for special populations in vocational education. OSS is expanding its activities to focus on student services which facilitate the transition of all secondary and postsecondary students from school to work. Requests for technical assistance related to the OSS's 1995 activities are forwarded to that staff. Technical assistance efforts by the Professional Outreach Program and the OSS are marketed through all NCRVE briefs, newsletters, and brochures.

Professional Outreach Program staff will continue establishing professional linkages with other organizations (e.g., National Alliance of Business, National School Boards Association, National Council of State Legislators, National Association of Secondary School Principals, Northwest Regional Educational Laboratory, American Home Economics Association, Mathematical Sciences Education Board, KCET Public Television Station, and the University Council for Vocational Education). Such organizations assist NCRVE staff by identifying audiences, providing technical assistance in producing national satellite teleconferences, and identifying other organizations that might be interested in collaborating with the Center staff.

Deliverables

The following are deliverables of the Progressive Outreach Program:

- Conference notebook/monograph from the skill standards conference
- Conference notebook/monograph from the annual practitioner conference
- Brochure announcing the AACC pre-sessions
- Roster of individuals available to provide technical assistance to the field

Office of Student Services

Program Director: Carolyn Maddy-Bernstein, University of Illinois (Year 3 of 5)

Keywords: school to work; student services; special populations; guidance and counseling; information dissemination; publications; conferences

While promoting access and equity of vocational-technical education programs for students who are members of special populations remains a NCRVE priority (and is a requirement under the 1990 Perkins mandate for the Center), we recognize the need to improve the broad range of student services which facilitate the school-to-work transition of all students.

The OSS is NCRVE's Office of Special Populations expanded to include a broader focus on student services, which facilitate the transition of secondary and

postsecondary students from school to work. OSS will work nationally to promote the full range of quality programs and services that assist all students (secondary and postsecondary) to transition from school to work. To achieve this mission, its objectives are to

- increase awareness and understanding of the critical need to provide a broad array of student transition services needed by *all* students.
- increase the use of available resources.
- initiate and support networks of professionals.
- promote exemplary program activity and the adoption of model practices.
- maximize the impact of the program's resources and activities through collaborative activities with state and national organizations.

During 1995, OSS will conduct the following activities. These activities are organized to correspond to each of its five objectives:

1. Increase awareness and understanding of the critical need to provide a broad array of student transition services needed by all students.

1.1 *Topical papers.* Three short topical research/resource papers entitled *OSS BRIEF*s will be produced.

1.2 *Conference presentations.* The staff will submit proposals to present at state, regional, and national conferences related to its themes. The staff will also cosponsor conferences with the Council for Exceptional Children, the American Vocational Association, the National Association of Special Needs State Administrators, and the National Alliance of Partnerships in Equity.

1.3 *Dissemination.* Information concerning upcoming presentations by the staff and the availability of the *BRIEF*s is disseminated through announcements submitted to professional newsletters and posted to relevant electronic resources. In addition, information about the *BRIEF*s is displayed at regional and national conferences. The entire text of each *BRIEF* is posted on relevant electronic bulletin boards and databases including VocServe and ACCESS ERIC. Copies of

the *BRIEF* are distributed to those on the OSS's mailing list of over 8,000 professionals. It will also be available through the ERIC system.

2. Increase the use of available resources.

2.1 *Topical resource guides.* The OSS will publish two resource guides on student transition services topics (e.g., career counseling). These guides will be available through NCRVE.

2.2 *Resource service.* The staff will continue to respond to information requests related to vocational education for special populations and expand this service to others interested in transition services. This free resource service is widely publicized. Clients are provided with up-to-date annotated topical listings of publications and human resources.

2.3 *Resource search.* On an ongoing basis, the OSS staff will monitor relevant electronic bulletin boards and approximately 200 newsletters related to student services for information on new resources related to program improvement.

2.4 *Computerized information base maintenance.* The staff will select and annotate relevant resources and prepare this information for entry into the OSS's computerized information base. Entries older than five years are routinely deleted from the database.

2.5 *Dissemination activities.* Information on the availability of topical resource guides is disseminated through announcements submitted to professional newsletters, posted to relevant electronic resources, and announced during staff presentations at conferences.

3. Initiate and support networks of professionals.

3.1 *Networking state personnel.* The OSS will continue to serve as a hub for a network of the state personnel responsible for special populations programs. The network's purpose is to share information on state activities and resources related to program improvement and to reduce duplication of state efforts.

3.2 *Networking Letter.* Relevant information obtained from network members and other sources is highlighted in seven issues of the *Networking Letter*, which is

disseminated to each state administrator of vocational special needs programs, with copies to the state directors of vocational education.

3.3 *Networking with special needs association.* The OSS will cosponsor the annual National Association for Special Needs State Administrators Conference.

3.4 *Network with career guidance organizations.* The staff will work to become an integral part of regional and national organizations that promote career guidance and counseling programs.

4. Promote exemplary programs and the adoption of model practices.

4.1 *Exemplary career guidance program search.* The OSS will work with the U.S. Department of Education and the state guidance supervisors to conduct a search for exemplary career guidance programs. The exemplary programs are disseminated in a manner similar to Activity 4.4.

4.2 *Exemplary special populations program activity.* Using the concept mapping technique, the vocational education programs recognized over the previous four years as exemplary by the Office of Special Populations will be studied in-depth to determine the validity of the current framework.

4.3 *National exemplary program conference.* A national conference for counselors, teachers, administrators, and other professionals will be conducted, possibly as a pre-session to the American Counseling Association. This conference will feature exemplary career guidance and counseling programs identified through the search.

4.4 *Dissemination of exemplary program information.* Program descriptions and contact information for National Recognition Program awardees is disseminated through (1) submitting results to state directors, personnel responsible for special populations, career guidance and counseling coordinators, and other relevant federal and national agencies in the OSS's mailing list; (2) publications (monographs) developed by staff and made available through NCRVE; (3) materials and other handouts distributed through the OSS resource service; (4) information submitted to guidance counselors and members of other associations with which OSS collaborates; (5) information submitted to professional newsletters; (6) announcements posted to relevant electronic bulletin boards; and (7) programs presented by staff at conferences.

5. Maximize the impact of the OSS resources and activities through collaborative activities with state and national organizations.

5.1 The OSS will collaborate with the National Association of Special Needs State Administrators during their annual conference. The staff will assist conference planners as well as make a conference presentation.

5.2 The OSS will work with the Division of Career Development and Transition (DCDT) of the Council for Exceptional Children to plan and participate in their regional and annual conferences.

5.3 The OSS will collaborate with the National Association of Vocational Special Needs Personnel to conduct a national survey to determine the impact of the 1990 Perkins Act on local programs. Results will be reported by December 1995.

5.4 The OSS will collaborate with National Alliance of Partnerships in Equity officers to plan activities and disseminate information on issues affecting women.

5.5 The OSS will collaborate with the National Career Development Association of the American Counseling Association and the AVA's Guidance Division to search for and disseminate information on exemplary vocational/career guidance and counseling programs for all students including special populations.

Deliverables

The following are deliverables of the OSS:

- Three topical *OSS BRIEFs*
- Two topical resource guides
- National Exemplary Career Guidance Program Conference
- Seven state special populations personnel *Networking Letters*
- Monograph on exemplary career guidance programs

Other Dissemination and Training Projects

CenterFocus

Program Director: Erwin Flaxman, Teachers College, Columbia University (Year 3 of 5)

Keywords: knowledge synthesis; publications

CenterFocus is NCRVE's annual series of six brief syntheses of research and practice knowledge. Each issue is based on NCRVE research and other topics of great concern to the field. The syntheses are developed primarily for practitioners and policymakers.

The topics under discussion for the year three synthesis papers are (1) "bridging" practices in STWO programs, (2) math curriculum in Tech Prep and integration programs, (3) counseling practices for helping students develop a career identity, (4) credentialing in STWO programs, (5) public sector student employment, and (6) a topic to be determined based on a current NCRVE report.

Deliverables

Six brief syntheses of research and practice knowledge published under the series title *CenterFocus*.

Skill Standards Conference

Program Director: Thomas Bailey, Teachers College, Columbia University (Year 1 of 1)

Keywords: skill standards; conferences; professional development

The Goals 2000: Educate America Act establishes a National Skill Standards Board to oversee the national program of industry skill standards. Over the last two years, NCRVE staff at both Teachers College, Columbia University, and MPR Associates, Inc., in Berkeley have carried out research on skill standards, and we expect to launch a program of research on skill standards through four coordinated projects starting in January 1995. In addition, during the last several years, work at Teachers

College, RAND, and Berkeley has been concerned with changing skill requirements on the job.

A two-day conference on skills and skill standards will be planned and held. We are proposing to organize a conference to help the work of the National Skill Standards Board during its early stages by bringing to bear our accumulated experience and the experience of others with whom we have been working and interacting. The conference will serve two purposes: (1) a reassessment of the skill standards movement, and (2) an analysis of what works and what stands in the way of broader implementation. The conference will evaluate the progress of the skill standards movement, sort out the lessons, and help practitioners choose their future direction.

Deliverables

Written material from the conference will include both the preconference materials and a postconference report similar to the Institute on Education and the Economy (Teachers College) report, *A Time for Questions: The Future of Integration and Tech Prep*, published after the 1993 three-day summit on Tech Prep and integration.

Education for Work: A Practitioner Guide Toward New Curriculum and Teaching

Project Director: Gary Hoachlander, MPR Associates, Inc. (Year 2 of 2)

Keywords: school-based learning; school to work; curriculum/training material

The purpose of this project is to develop practitioner materials which focus on the role of the school in school-to-work transition with an emphasis on developing integrated curriculum. The content will build on NCRVE's collective knowledge of reforming schools through the integration of vocational and academic education. The target audience for these practitioner materials are administrators, principals, or lead teachers working with groups of teachers attempting to integrate vocational and academic education at schools.

This project will consist of the following three major tasks:

Task 1—Literature Review/Synthesis

The focus of this literature review is on what NCRVE has learned in the last seven years. This literature review/synthesis will serve as the basis for the practitioner materials to be developed.

Task 2—Practitioner Guide/Workbook

The Practitioner Guide/Workbook will include at least five dividers/sections. Each of the first four sections will contain four parts: (1) conceptual framework, (2) lessons learned/"how to," (3) worksheets/exercises/role plays, and (4) examples of concepts in action from real schools or programs. The following is a list of the five sections:

Section 1—The Delivery System (school/program structure and management)

Section 2—Integrating Vocational and Academic Curriculum at the Instructor Level

Section 3—Bringing Industry to the Classroom

Section 4—Standards and Alternative Assessment

Section 5—Checklist and Resources for the Different Players in School-to-Work Transition

Task 3—Train-the-Trainer Materials

MPR Associates, Inc., will develop materials to allow a local or state administrator or lead teacher to use the information contained in the Practitioner Guide/Workbook in a staff develop/training setting.

Deliverables

The project will produce two major products:

1. Practitioner Guide/Workbook on integrating vocational and academic education
2. Train-the-trainer materials such as overheads, wall charts, and facilitation materials

Technical Assistance to the Vocational Education Consortium of the Southern Regional Education Board

Project Director: Gary Hoachlander, MPR Associates, Inc. (Year 3 of 5)

Keywords: accountability; integration

NCRVE will continue to provide evaluation and technical assistance services to the Vocational Education Consortium of the Southern Regional Education Board (SREB), which includes 325 sites in 18 states. These sites represent the single largest group in the country actively pursuing a variety of strategies for improving vocational education such as curriculum integration, emphasizing high-level math and science instruction and changing teacher expectations, and stressing performance-based accountability.

MPR staff will (1) design an overall data collection strategy and survey instruments; (2) collect and analyze data reported by participating sites; and (3) prepare reports to sites, states, and the Consortium as a whole. Additionally, MPR Associates actively participates in the SREB annual summer workshop, fall and spring follow-up workshops, and periodic SREB board meetings.

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National Center for Research in Vocational Education
University of California at Berkeley
2150 Shattuck Avenue, Suite 1250
Berkeley, CA 94720-1674

(510) 642-4004 (800) 762-4093 (510) 642-2124 FAX
AskNCRVE@vocserve.berkeley.edu

David Stern, Director
Phyllis Hudecki, Associate Director
Olivia Moore, Deputy Director

Peter Seidman, Dissemination
Erika Nielsen-Andrew, Development
Susan Faulkner, Professional Outreach
Carolyn Maddy-Bernstein, Student Services

NCRVE Consortium Members

W. Norton Grubb, Site Director
University of California at Berkeley
Graduate School of Education
Berkeley, CA 94720
(510) 642-3488
norton_grubb@maillink.berkeley.edu

Cathy Stasz, Site Director
RAND
1700 Main Street
Santa Monica, CA 90407-2138
(310) 393-0411 ext. 6326
cathy@rand.org

Mildred Griggs, Site Director
University of Illinois
Department of Vocational and
Technical Education
345 Education Building
Champaign, IL 61820
(217) 333-0807
mildredb@ux1.cso.uiuc.edu

Thomas Bailey, Site Director
Columbia University
Institute on Education and the Economy
Teachers College, Box 174
New York, NY 10027
(212) 678-3091
tb3@columbia.edu

Charles Hopkins, Site Director
University of Minnesota
Department of Vocational and
Technical Education
210 VoTech Building
1954 Buford Avenue
St. Paul, MN 55108
(612) 624-5313
hopki003@maroon.tc.umn.edu

Curtis Finch, Site Director
Virginia Polytechnic Institute and
State University
Division of Vocational and Technical Education
112 Lane Hall
Blacksburg, VA 24061-0254
(703) 231-5982
NCRVE@vtvm1.cc.vt.edu

Gary Hoachlander, Site Director
MPR Associates, Inc.
2150 Shattuck Avenue, Suite 800
Berkeley, CA 94704
(510) 849-4942
ghoachlander@mprinc.com

L. Allen Phelps, Site Director
University of Wisconsin
Center on Education and Work
964 Educational Sciences
1025 West Johnson Street
Madison, WI 53706
(608) 263-3696
aphelps%cew@soemadison.wisc.edu

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